

Decision Maker: Portfolio Holder for Environment

Date: For pre-decision scrutiny by the Environment and Community Services Policy Development and Scrutiny Committee on 16 November 2023

Decision Type: Non-Urgent Non-Executive Key

Title: **LBB'S NET ZERO CARBON ACTION PLAN – REPORTING YEAR 4 (2022/23)**

Contact Officer: Karin Grey, Carbon Programme Manager
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Chief Officer: Director of Environment and Public Protection

Ward: (All Wards);

1. Reason for decision/report and options

- 1.1 This report details the changes in LBB's organisational emissions for carbon reduction for year 4 of the Council's Net Zero Action Plan (2022/23) and provides an update on progress made towards achieving the Council's 2027 net zero carbon target.
- 1.2 This report also provides an update on the work to baseline Scope 3 procurement emissions and sets out suggested next steps for a separate action plan to reduce these emissions.

2. **RECOMMENDATIONS**

The Environment & Community Services Policy Development and Scrutiny (ECS PDS) Committee is asked to review the report and provide their feedback on the recommendations to the Portfolio Holder for Environment.

The Portfolio Holder for Environment is asked to:

- 2.1 **Review the year 4 greenhouse gas assessment (GHG) and progress made to reduce the Council's organisational emissions to net zero by 2027.**
- 2.2 **Review the Scope 3 procurement emissions measured.**
- 2.3 **Approve work on an Action Plan for the phased reduction of Scope 3 emissions for presentation to a future meeting of the Executive for a decision.**

Impact on Vulnerable Adults and Children

1. Summary of Impact: Reducing carbon emissions will have a positive impact on the quality of life enjoyed by all members of the community.
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Transformation Policy

1. Policy Status: Year 4 update on progress made towards LBB's 2027 net zero carbon target.
2. Making Bromley Even Better Priority

(4) For residents to live responsibly and prosper in a safe, clean and green environment great for today and a sustainable future.

(5) To manage our resources well, providing value for money, and efficient and effective services for Bromley's residents.

Financial

1. Cost of proposal: Not Applicable
 2. Ongoing costs: Not Applicable
 3. Budget head/performance centre: Carbon Management R62003
 4. Total current budget for this head: £155,000
 5. Source of funding: Existing revenue funding, includes staffing costs, consultancy fee, software costs and project expenses. Various internal and external funding options for carbon reduction initiatives.
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Personnel

1. Number of staff (*current and additional*): 3 FTE
 2. If from existing staff resources, number of staff hours:
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Legal

1. Legal Requirement: Non-Statutory – Government guidance
 2. Call-in: Not Applicable
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Procurement

1. Summary of Procurement Implications: Not Applicable
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Property

1. Summary of Property Implications: The Operational Property Refurbishment Board continues to seek opportunities to include carbon reduction measures in its work programme.
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Carbon Reduction and Social Value

1. Summary of Carbon Reduction/Sustainability Implications: The purpose of the Council's Net Zero Action Plan is to work towards reducing its own direct carbon emissions.
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Impact on the Local Economy

1. Summary of Local Economy Implications: Positive benefit with the potential to procure carbon reduction measures/work from local companies and encouraging upskilling of local workforce.
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Impact on Health and Wellbeing

1. Summary of Health and Wellbeing Implications: Reducing carbon emissions has a positive impact on health and wellbeing.
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Customer Impact

1. Estimated number of users or customers (*current and projected*): The reduction in carbon emissions will benefit all those who live, work or visit the borough.
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Ward Councillor Views

1. Have Ward Councillors been asked for comments? Not Applicable
2. Summary of Ward Councillors comments: Not Applicable

3. COMMENTARY

Background

- 3.1 On 15th July 2019 the Council unanimously agreed to achieve net zero carbon emissions within 10 years (2029). The motion referred to the Council's Scope¹ 1 and 2 direct organisational emissions only (i.e., those emissions directly within the Council's operational control, where the Council pays the energy bills).
- 3.2 On 29th January 2020, the Environment and Community Services Policy Development and Scrutiny Committee reviewed and approved a 2029 Net Zero Carbon Strategy (**ES19094**), with the Net Zero Action Plan (NZAP) subsequently reviewed by the same committee on 17th November 2020 (**ES20047**).
- 3.3 At a Full Council meeting on 28th February 2022, it was agreed that the Council would revise their target for net zero (scopes 1 and 2) direct emissions from 2029 to 2027. In October 2022, the Executive agreed to the prioritisation of four key initiatives to achieve the delivery of this revised date, with a focus on:
- LED street lighting upgrades
 - Energy efficiency upgrades to Council buildings (included in Scope 1 and 2)
 - Procurement of 100% renewable energy via a Purchase Power Agreement
 - Various offsetting measures to removal residual emissions.
- 3.4 The Executive also agreed to measure its Scope 3 procurement emissions based on service time and contract spend, with the aim of using this data to develop and agree a separate Action Plan for and appropriate phased approach to reduction. (**ES20201**).
- 3.5 This report provides detail on the Council's direct emissions in 2022/23 and summarises the progress made towards the NZAP during the fourth year of implementation. It also reports back on the progress made to measure Scope 3 procurement emissions and sets out some recommended next steps for the creation of the Action Plan.
- 3.6 Progress against the NZAP is reported annually and published on the Council's website: [Net Zero Action Plan performance reports](#). Performance is measured in three different ways: against the 2018/19 baseline year; on an annual basis; and against the net zero target.

Measuring the Council's Organisational Emissions

- 3.7 Guided by the international Greenhouse Gas Protocol (GHG) Corporate Accounting and Reporting Standard, LBB measures carbon emissions for the activities shown below in table 1:

Scope 1	Scope 2	Scope 3 (where these are direct emissions)
<ul style="list-style-type: none">• Building heating: gas & oil	<ul style="list-style-type: none">• Purchased electricity (LBB)	<ul style="list-style-type: none">• Business travel• Staff commuting• Electricity (transmission & distribution)

¹ The GHG Protocol categorises emissions into three different scopes, which helps define operational boundaries: Scope 1: Direct GHG emissions occurring from sources that are owned or controlled by the organisation, such as the emissions from burning gas to heat a building, and the emissions directly entering the atmosphere from using company vehicles. Scope 2: Electricity indirect GHG emissions produced from the generation of purchased electricity. Scope 3: Accounts for other relevant indirect emissions (i.e., emissions resulting from the consequence of an organisation's activities and services it delivers, occurring from sources not owned or controlled by the organisation).

consumption (LBB estate) • Council owned fleet: petrol/diesel consumption	estate / borough street lighting)	<ul style="list-style-type: none"> • Waste (Civic Centre) • Water (LBB estate) • Paper (Civic Centre)
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3.8 The Council's net zero target applies to all those emissions that it directly controls, namely, all Scope 1 and 2 emissions, plus a limited number of Scope 3 emissions for business travel, water and paper usage, office waste and transmission and distribution losses, (which are emissions associated with the energy losses which occur from supplying electricity from the power plant to the end user), because of the Council's ability to directly control these.

3.9 The Council does not directly control Scope 3 emissions arising from staff commuting and procured services, and therefore these are excluded from its net zero emissions assessment.

Key findings

3.10 The Council's net zero emissions for year 4 (2022/23), in line with previous years assessment and reporting, totalled **3,133 tonnes² CO₂e**. This is a 14% reduction on year 3 (2021/22) and a 56% reduction on the baseline year of 2018/19.

3.11 Most the Council's direct emissions from Scope 1 and 2, based on finance year 2022/23 data, are generated from its buildings (60%) and street lighting (37%), hence why these remain a focus area for action.

3.12 Table 2 below illustrates the reduction in tonnes CO₂e since 2018/19.

	NZAP Progress							
	2018/19	2019/20	2020/21	2021/22	2022/23			
Scope 1 & 2 direct emissions	CMP3 Baseline Year Emissions (tCO₂e/yr)	Year 1 Emissions (tCO₂e/yr)	Year 2 Emissions (tCO₂e/yr) Covid yr.	Year 3 Emissions (tCO₂e/yr)	Year 4 Emissions (tCO₂e/yr)	Annual Percentage change	% of total emissions 2022/23	% reduction against baseline
Buildings (electricity & gas)	3,954	3,822	1,942.5	1,999.6	1,893.1	-5%	60.4%	52%
Street lighting	2,888	2,451	1,889.2	1,487.2	1,158.8	-22%	37%	60%
Fleet	60.9	33.8	48.2	18.1	8.6	-52%	0.3%	86%
Waste	3.4	2.5	0.3	0.8	2.0	154%	0.06%	42%
Water	54.6	54.6	7.0	2.8	3.1	9%	0.1%	94%
Paper	44.4	35.1	10.7	10.7	8.7	-18.1%	0.3%	80%
Business travel	190.7	184	87.3	127.1	59.0	-54%	1.9%	69%
Total (tCO₂e/yr)	7,196	6,584	3,985.2	3,646.2	3,133.3	-14.1%	100%	56%

2022/23 Net Zero Carbon Performance Commentary

3.13 Year 4 continues to show a reduction in emissions. Most of these reductions were seen in business mileage, council owned fleet, streetlighting and paper usage. Water usage and waste produced show a slight increase, though this is still significantly below pre-Covid times.

² Greenhouse gas emissions (GHG) in line with the protocol are reported in units of carbon dioxide equivalents (CO₂e). This allows the impact of each of the seven main greenhouse gasses to be expressed in terms of the amount of CO₂ that would create the same amount of warming, allowing easy comparison of the impact of different emission types. Throughout this report, all greenhouse gas emissions are given in terms of tonnes of carbon dioxide equivalent (tCO₂e).

It should be noted that the waste recorded only relates to waste produced at the Civic Centre site.

3.14 The graph below, figure 1, depicts the reduction in emission since the baseline year 2018/19, (dark blue line). The reduction in emissions during the Covid pandemic have been significant, with staff working from home and offices managed on a skeleton staff.

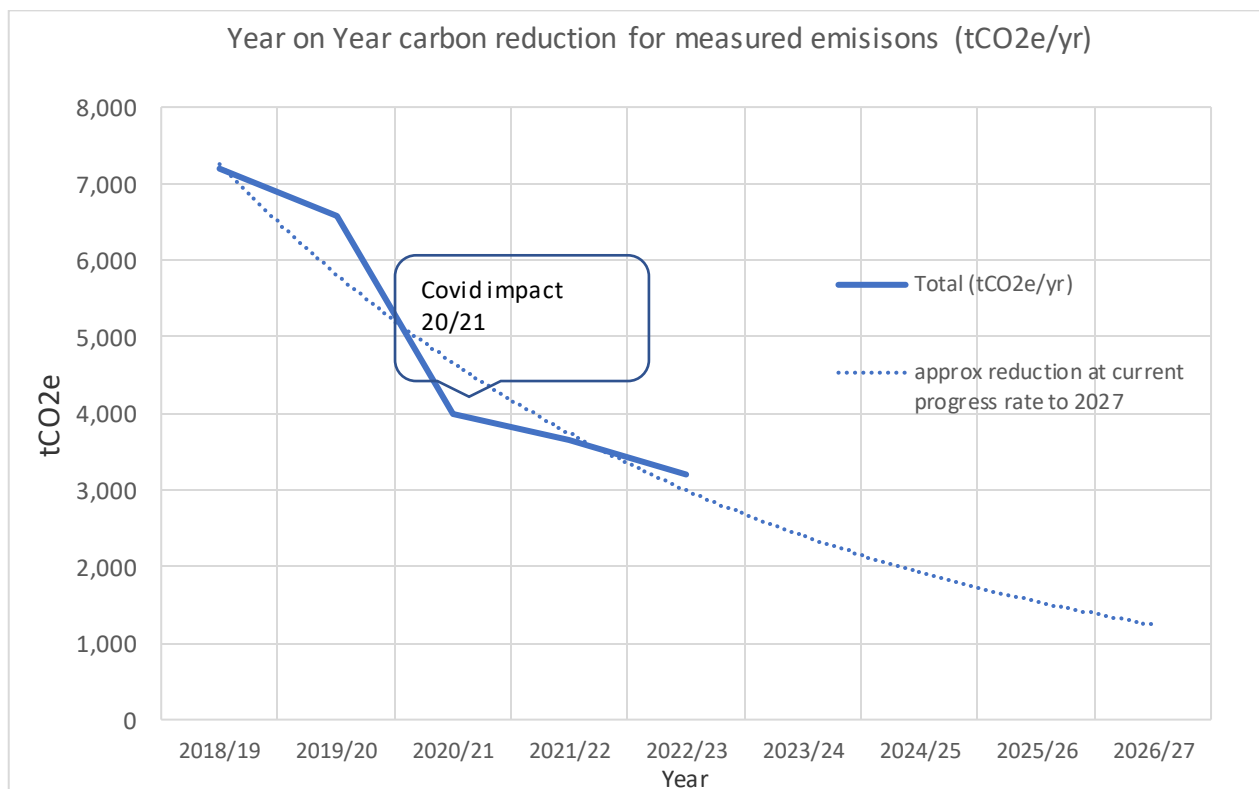


Figure 1: Year on year carbon reduction for Scope 1 & 2 emissions.

3.15 Post-Covid some reduction is continuing, but this has been at a slower rate, and it is too early to discern a clear trend in this flatter reduction. A potential reduction trend line is represented by the dotted blue line which indicates a possible reduction based on previous years, but which also incorporates the steeper Covid reduction year. This very basic assessment indicates that by 2027, should emission reductions continue, approximately 82% emission reduction will have been achieved.

3.16 However, to achieve Net Zero with a minimised reliance on carbon offsets, measures to improve the energy efficiencies of the buildings need to be progressed. Crucially, for buildings only a 5% reduction was achieved from the previous year. It is not yet clear what impact the sale of the existing Civic Centre site will have on the NZAP delivery and future emissions, with data on the new site currently being collated for assessment.

3.18 The chart below, figure 2, demonstrates the percentage of emissions from the various sources namely heating for buildings, electricity for buildings and separately for streetlights and the various other categories related to travel, waste, water, and paper.

3.19 This identifies the key areas for action, which is already reflected in the prioritisation of the four initiatives as agreed by the Executive in October 2022, focusing on streetlight upgrades,

energy efficiency, renewable electricity and various offsetting measures to remove residual emissions.

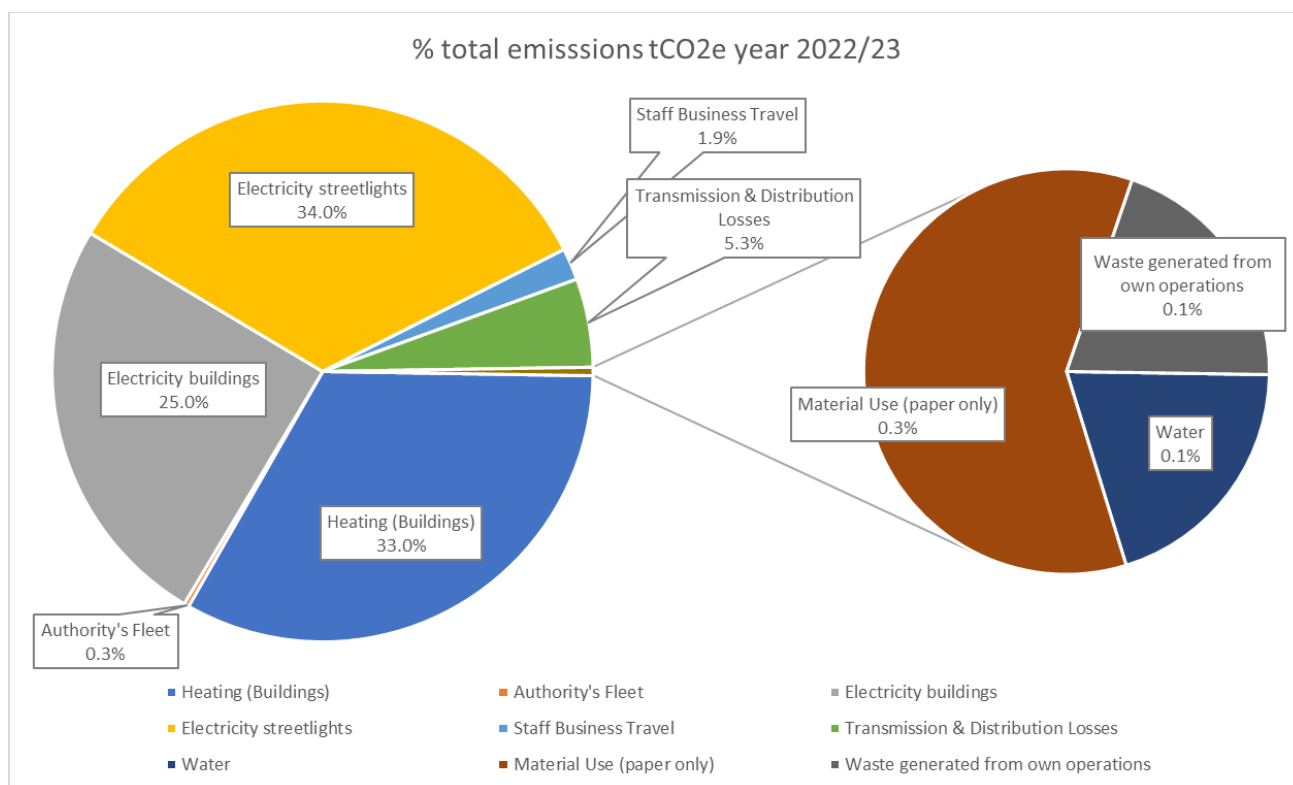


Figure 2: % of the total direct emissions for the Councils

- 3.20 **Buildings:** Staff continue to adopt a hybrid approach to work, working both from home and the office. Whilst the GHG accounting tool is now able to include emissions from staff working at home these emissions do not form part of the Council’s Scope 1 and 2 or directly controlled Scope 3 emissions and are therefore not included in these calculations.
- 3.21 It was agreed³ that projects to reduce emissions through buildings and their energy efficiency will be informed by the recommendations arising out of the Operational Property Review and will seek to move towards low carbon energy sources for heating where possible. This work will continue to need to be prioritised if the aim to meet the net zero target by 2027 is to be met.
- 3.22 Space heating and water heating are the primary uses of natural gas by the Council. The emissions associated with the use of natural gas are determined by the mix of sources used to make up the UK grid supply of gas. As a result, the carbon factor associated with natural gas does fluctuate slightly. However, whereas the electricity emission factor is improving due to the increase in the mix of renewables this is not the case for natural gas. Gas will remain a significant emitter of carbon and hence the importance to improve the energy efficiency of the buildings which will also save money on heating bills, which becomes more important due to the volatility of the energy market.
- 3.23 **Streetlights:** The majority of the columns have now been upgraded to LED, with the final phase of the project converting the last couple of hundred columns. Likewise, the street lanterns have been fitted with timer and dimmer switches to enable the lights to be dimmed as

³ Carbon Management Programme Update (ECS PDS) September 2023

appropriate very late at night/early hours of the morning to reduce energy requirements. The benefits of the upgrade can be seen by the 60% reduction in carbon emissions from the baseline year 2018/19.

- 3.24 **Electricity procurement:** The Council currently purchases electricity via a standard green energy tariff backed by REGO (Renewable Energy Guarantees of Origin) certificates. The opportunity to purchase 100% renewable electricity directly from a renewable energy generator, as one of the three key priority initiatives will continue to be explored, with the Greater London Authority leading a pan-London renewable PPA procurement option for 2025, which would allow all London boroughs to access renewable energy so that it can achieve zero emissions on electricity use.
- 3.25 The roll out of the Automated Meter Reading (AMR) installation programme to achieve more accurate and timely billing and energy monitoring capability is also progressing.
- 3.26 **Fleet:** A reduction in fleet emissions is due to the overall reduction in the size of the fleet, as can be seen by the 86% carbon reduction from the baseline. The 'gritter fleet' also has a mix of newer vehicles, with emissions also dependent on the severity of the winter season and the number of days on which gritting is required. The remaining fleet vehicles are kept under continuous review with two electric vehicles initially purchased to assess their viability, and these are used daily by the highways team. Any changes to the fleet will be considered in terms of operational need and carbon reduction and a separate business case submitted for decision.
- 3.27 **Waste:** Currently, only waste generated from the Civic Centre site is measured. This has increased over the last two years with staff returning to the office after Covid but is still below the baseline year. The increase could in part be due to better accounting but also to the Council's decision to 'declutter' and move to a paperless system. In due course the waste generated should again reduce, providing appropriate waste reduction and recycling behaviours continue to be taken.
- 3.28 **Water:** This has seen a slight increase, which may be due to more people working in the office.
- 3.29 **Paper:** Usage continues to decrease as the move towards a paperless office progresses and work is underway to move towards more electronic storage proceeds (for example such as the move to an electronic case management system in Legal services).
- 3.30 **Business travel:** Also known as 'grey fleet' mileage has shown a 68% reduction on the previous year's business travel. This is a significant drop in mileage travelled by staff, and it is too early to discern a clear pattern. It could be that business travel may now have settled post Covid and the effectiveness of online meetings may also account for this drop. However, the reporting platform used previously to record mileage has also been archived which has made it more difficult to retrieve the data set for 2022/23. Going forward though messages to staff for effective travel will continue which will also support LBB policy to manage our resources well.
- 3.31 **Carbon offsetting:** In addition to implementing initiatives that reduce energy consumption, the Council will review opportunities to offset residual emissions. In the meantime, the expansion of woodlands within the Borough will continue to be explored.

Scope 3 procurement emissions

- 3.32 Following agreement by the Executive to measure the Councils Scope 3 procurement emissions based on service time and contract spend, 'CO2 Analysis', a data specialist company was commissioned to undertake this assessment. The emissions from the procured services were

assessed for the three financial years from 2019 to 2022. In due course the assessment for 2022/23 will also be received. For this report the most recent data set available for the scope 3 procured emissions is 2021/22.

- 3.33 The Scope 3 procurement emissions, (based on service time and contract spend), for the majority of the suppliers in 2021/2022, come to 89,571 tonnes of CO₂. This is not unusual, for most organisations Scope 3 Purchased Goods and Services in general will be over 80% of their Carbon footprint.
- 3.34 Whilst scope 3 emissions are larger than for scope 1 and 2, the Council has direct control and influence on reducing scope 1 and 2. With the scope 3 emissions, the suppliers are also considering opportunities for carbon reduction with encouragement from their customers.
- 3.35 The supplier data is further broken down into the main suppliers for carbon emissions. As set out below in Figure 3, the top 8 suppliers as a percentage (%) of overall carbon emissions are shown.

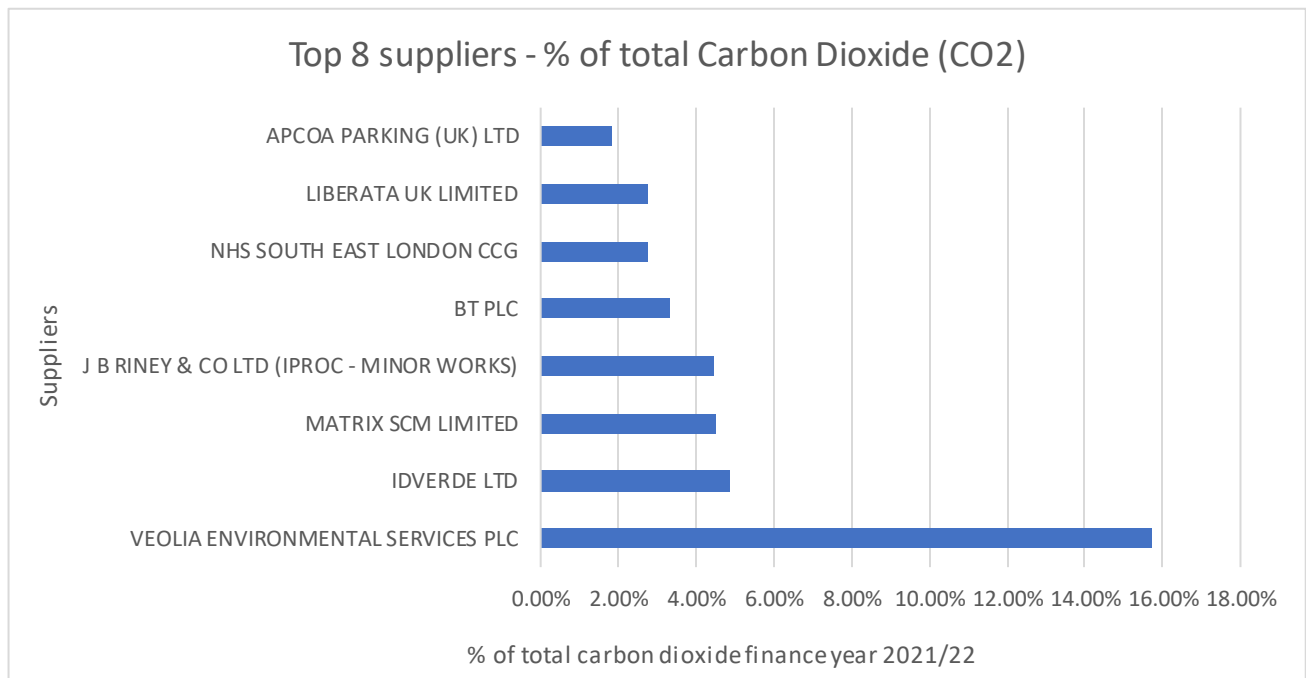


Figure 3: Top 8 suppliers as a % of overall carbon emissions

- 3.36 The data clearly indicates which are the most significant service areas for procurement emissions to enable effective carbon reduction measures to be taken. This information will now be considered by the various service areas as to how improvements could be made over a longer timeframe to meet the goal of net zero, in line with the relevant contracting strategies. This is required to be able to consider timeframes for any associated Action Plan.
- 3.37 The information will be collated and reviewed at all levels and will in due course be brought back to the ECS PDS Committee and Executive for consideration and decision.

4. TRANSFORMATION/POLICY IMPLICATIONS

- 4.1 The Council's Net Zero Action Plan primarily delivers against ambition four of the Council's Corporate Strategy (making Bromley Even Better); 'For residents to live responsibly and prosper in a safe, clean and green environment great for today and a sustainable future.'

4.2 Actions taken to achieve net zero emissions will support the delivery of the Transforming Bromley aims:

- Responsible Financial Management Strategy: reduced future costs to the council through lower energy bills.
- Effective Resident Engagement: Demonstrates the Council's environmental commitments to the wider public.
- Improving the Public Realm, maintaining our Green Spaces and Promoting Economic Growth: Safeguarding the environment and promoting a green recovery.

5. FINANCIAL IMPLICATIONS

5.1 Projects to reduce emissions through buildings and their energy efficiency are being considered as part of the Operational Property Refurbishment Programme and subject to appropriate business case appraisals.

5.2 Further initiatives to achieve the Council's net zero target will continue to be assessed through a detailed business case process, taking into account available funding and revenue budget savings alongside the impact to the Council's net carbon emissions.

6. LEGAL IMPLICATIONS

6.1 This report asks the Portfolio Holder for Environment to:

- i) Review the year 4 greenhouse gas assessment (GHG) and progress made to reduce the Council's organisational emissions to net zero by 2027;
- ii) Review the Scope 3 procurement emissions measured; and
- iii) Approve work on an Action Plan for the phased reduction of Scope 3 emissions for presentation to a future meeting of the Executive for a decision.

6.2 The Council has both an implied and a specific power under Section 111 of the Local Government Act 1972 to do anything (whether or not involving the expenditure, borrowing or lending of money or the acquisition or disposal of any property or rights) which is calculated to facilitate, or is conducive or incidental to, the discharge of any of their functions.

6.3 Any procurement will need to comply with the Procurement Regulations 2015 (the Regulations) and the Council's Contract Procedure Rules. Any variation to existing contracts should comply with the Regulations and advice should be sought from legal.

7. PROCUREMENT IMPLICATIONS

7.1 There are no specific procurement actions arising from this report at this time. The report indicates that a future report may be presented outlining potential strategies for carbon reduction measures for procurement emissions.

7.2 Carbon reduction and social value implications are required to be considered and commented on as part of the existing gateway report process which is used to inform decision making on new procurements. A future report on potential strategies for carbon reduction measures should consider any potential cost implications and impact on the provider market as part of any agreed policy.

- 7.3 It is important to note that any new net zero requirements contractually placed on Council suppliers through any potential Action Plan would apply to new contracts arising from new tenders only. Such requirements cannot be retrospectively applied to existing contracts unless agreed with the supplier through a lawful variation; such variations may incur additional unfunded costs as well as needing to comply with UK procurement legislation to avoid risk of challenge.

8. PROPERTY IMPLICATIONS

- 8.1 Orpington District Heating System - In the summer of 2023, Capital Projects successfully separated the Walnuts Shopping Centre and Orpington Library off the Orpington District Heating system. This 1970's below ground heating network is beyond economic repair and its inefficient operation had led to an un-economic consumption of fuel and power. The council's decision to decentralise this plant and separate the five buildings off the system will reduce energy.
- 8.2 Orpington Library, having been separated from the district heating network, underwent a radical change to its heating supply with the installation of a new Air Source Heat pump fed from electricity. This new low-energy solution will provide a modern solution to the three-storey building's heating demand, and in conjunction with a new Building Management System (BMS) will provide the ability to control heating times and reduce energy wastage.
- 8.3 The property team are currently working with the Carbon Management team to investigate the supply and installation of a new photovoltaic system on the main roof of Orpington Library. This large span flat roof which was insulated in 2012 provides an ideal clear area to install these and supplement the electricity demands of the building as well as providing the long-term ability to create income by selling back any surplus energy back to the grid. A further paper on the proposals will be presented in 2024.
- 8.4 Cotmandene Family Centre recently underwent an extension and refurbishment programme to support this much loved and used service in the St. Paul's Cray area of Orpington. As part of the project the works included the installation of a new low energy Air Source Heat Pump installation to provide heat and hot water for the demands of this busy community-based Children's Centre. This new technology further reduces the Council's reliance on fossil fuel generated heat and power such as a gas fed boiler.
- 8.5 Churchill Court is the Council's new Civic Centre and in 2024 will undergo a programme of refurbishment and adaptation work to create new Receptions, office accommodation, registrar areas and a new democratic hub including council chamber, committee rooms and mayoral suite. As part of this project the design team are proposing to replace all existing fluorescent lighting with new low energy LED lighting, and where appropriate, replace all mechanical plant with new low energy equipment including air handling units, fan-coil units and control systems. Increased insulation will be provided to roof and wall areas where possible to increase the thermal performance of the external envelope.

9. CARBON REDUCTION/SOCIAL VALUE IMPLICATIONS

- 9.1 Reducing the Council's direct emissions contributes towards local, regional and national carbon reduction targets.
- 9.2 Reducing the impacts of climate change will have a positive impact on the quality of life enjoyed by all members of the community.

Non-Applicable Headings:	Impact on Vulnerable Adults and Children, Personnel Implications
Background Documents: (Access via Contact Officer)	ES20220 - LBB's Net Zero Carbon Action Plan – Reporting Year ES20201 - Carbon Management Programme Update ES20047 – Net Zero Carbon Action Plan ES19094 - 2029 Net Zero Carbon Strategy